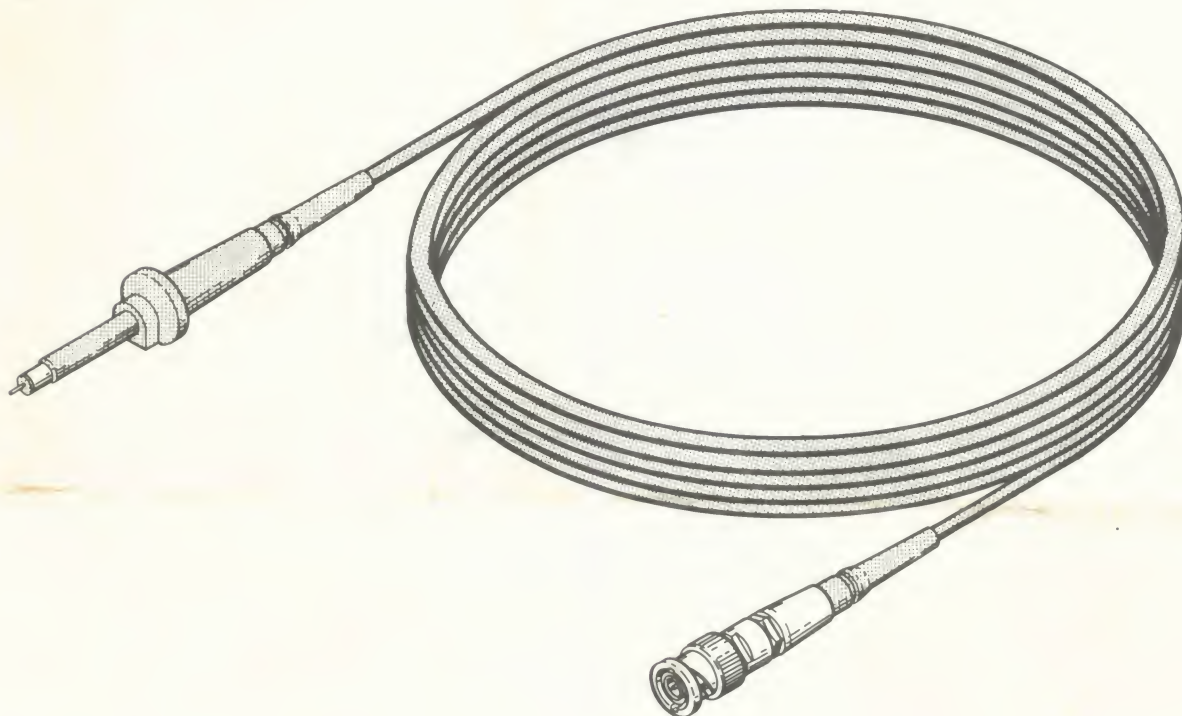


## P6101 PASSIVE PROBE



The P6101 Probe is a miniature, 1X, passive probe for use with all general-purpose oscilloscopes.

**WARNING**

To avoid shock, do not disassemble when connected to voltage source. Disassembly is a service operation only. Refer servicing to qualified service personnel.

Modular construction of the probe simplifies repair, as both the probe head and BNC connector are easy to remove from the cable assembly.

The P6101 Probe is available in three lengths and identified by the colored strain relief at each end of the cable: blue - 1 meter (3.3 ft), yellow - 2 meter (6.6 ft), red - 3 meter (9.9 ft).

NO. 062-1797-00  
DATE AUG. 1976 (R)

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**WARRANTY**

All TEKTRONIX instruments are warranted against defective materials and workmanship for one year. Any questions with respect to the warranty should be taken up with your TEKTRONIX Field Engineer or representative.

All requests for repairs and replacement parts should be directed to the TEKTRONIX Field Office or representative in your area. This will assure you the fastest possible service. Please include the Instrument Type Number or Part Number and Serial Number with all requests for parts or service.

Specifications and price change privileges reserved.

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## SPECIFICATIONS

## Electrical

Attenuation: 1X (same as oscilloscope).

Input Resistance: Same as oscilloscope.

Approximate Probe Capacitance:

1 Meter (3.3 ft) Blue	2 Meter (6.6 ft) Yellow	3 Meter (9.9 ft) Red
32 pF	54 pF	78 pF

Bandwidth (-3 dB):  
(Probe only)

Probe Length	Oscilloscope Input Capacitance 20 pF
1 Meter (3.3 ft)	At least 34.0 MHz
2 Meter (6.6 ft)	At least 15.5 MHz
3 Meter (9.9 ft)	At least 8.0 MHz

Maximum Input Voltage: 500 Volts (dc + peak ac), derated with frequency.  
See Figure 1. Voltage vs Frequency Derating.

## Environmental

Probe operates within specifications over the following ranges:

Temperature:  $-15^{\circ}\text{C}$  ( $+5^{\circ}\text{F}$ ) to  $+75^{\circ}\text{C}$  ( $+167^{\circ}\text{F}$ ).

Altitude: To 15,000 feet.

## Physical

Net weight (including accessories):

1 Meter (3.3 ft) Probe: 90 grams (3.2 oz).

2 Meter (6.6 ft) Probe: 115 grams (4.1 oz).

3 Meter (9.9 ft) Probe: 140 grams (4.9 oz).

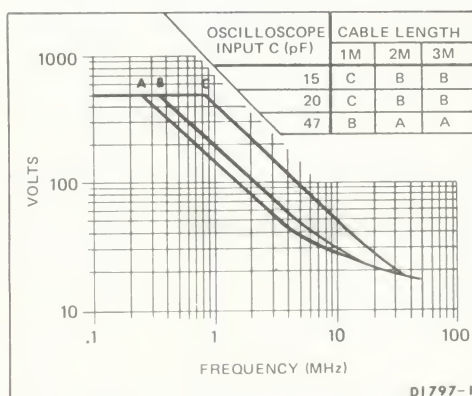


Figure 1. Voltage vs. frequency derating.

## OPERATING CONSIDERATIONS

### Probe Grounding

A passive probe is capacitive for high-frequency components. Inductance introduced by a long signal or ground lead will form a series resonant circuit that will "ring" if driven by a signal containing significant frequency components at or above circuit resonance. These oscillations can appear on the oscilloscope display and distort the true waveform. Ground leads and probe tip connections should be kept as short as possible to maintain the best fidelity.

## MAINTENANCE

### WARNING

To avoid shock, do not disassemble probe when connected to voltage source. Only qualified service personnel should use the following service instructions. Unless you are qualified to do so, perform no servicing except that contained in the preceding operating instructions.

The P6101 Probe is designed to withstand normal operation and handling. However, if the coaxial cable, probe head, or BNC connector should fail or break, replacement parts are available. See Replaceable Mechanical Parts List for part numbers.

### BNC Connector Removal:

See Figure 2 for BNC connector removal and replacement.

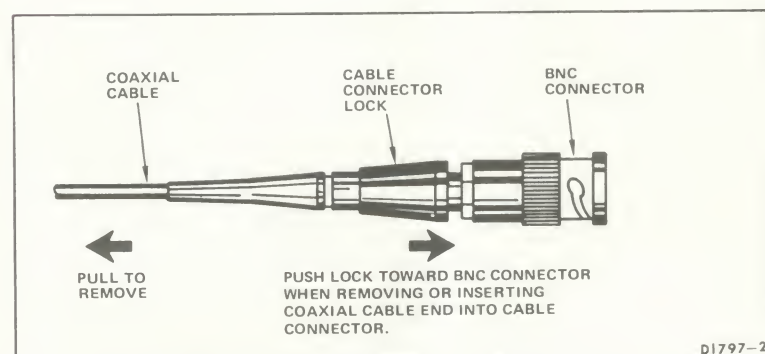


Figure 2. Removal and replacement of BNC connector.



Removing Probe Tip:

See Figure 3 for probe tip removal and replacement.

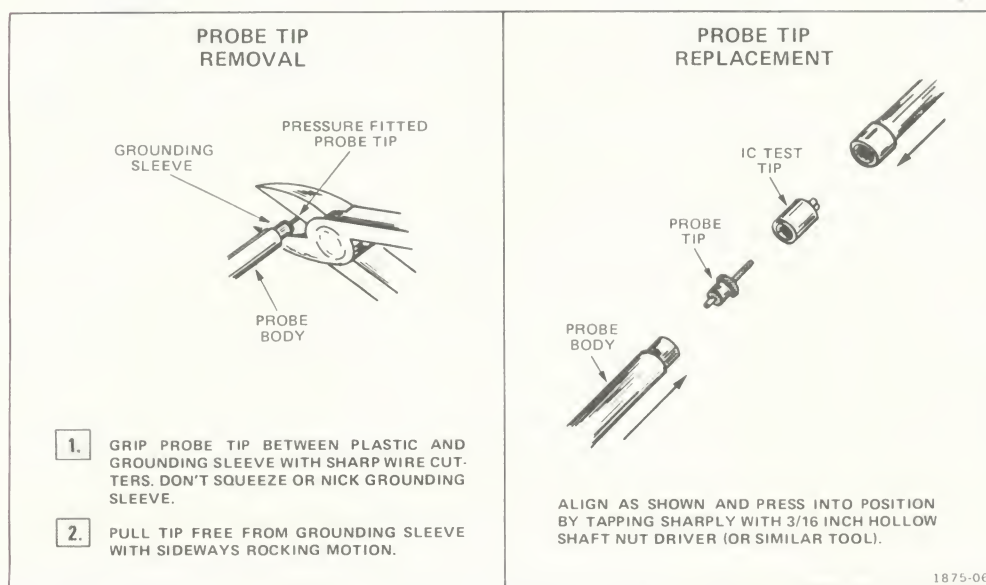
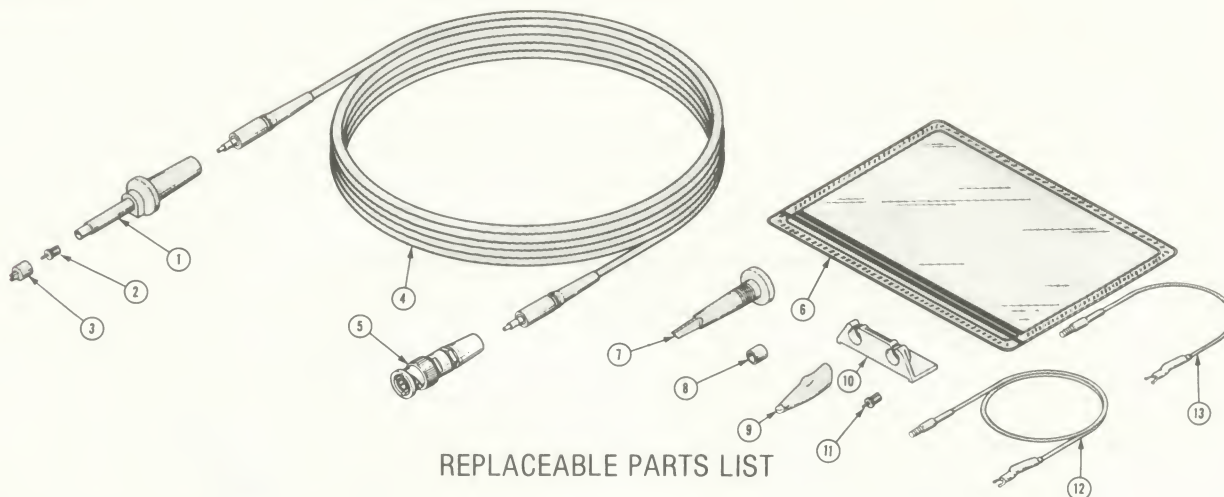


Figure 3. Probe tip removal and replacement.

## CROSS INDEX MFR. CODE NUMBER TO MANUFACTURER

MFR.CODE	MANUFACTURER	ADDRESS	CITY,STATE,ZIP
05006	TWENTIETH CENTURY PLASTICS INC.	415 E. WASHINGTON BLVD.	LOS ANGELES, CA 90015
80009	TEKTRONIX, INC.	P.O. BOX 500	BEAVERTON, OR 97077

# P6101 PROBE



## REPLACEABLE PARTS LIST

Fig. & Index No.	Tektronix Part No.	Serial/Model No. Eff Dscont	Qty	1 2 3 4 5	Name & Description	Mfr Code	Mfr Part Number
1 METER PROBE							
	010-6101-01		1		PROBE,VOLTAGE:1X,1M,W/ACCESSORIES	80009	010-6101-01
	010-6101-00		1		. PROBE,VOLTAGE:1X,1 METER	80009	010-6101-00
-1	206-0223-00		1		. . PROBE,HEAD:1 METER,BLUE	80009	206-0223-00
-2	-----	1	1		. . . TIP,PROBE:		
-3	-----	2	1		. . . TIP,PROBE:IC TEST		
-4	175-1661-00		1		. . CA,ASSY,SP,ELEC:COAX,1 METER,BLUE	80009	175-1661-00
-5	103-0189-00		1		. . ADPTR,CA END:	80009	103-0189-00
2 METER PROBE							
	010-6101-03		1		PROBE,VOLTAGE:1X,2M,W/ACCESSORIES	80009	010-6101-03
	010-6101-02		1		. PROBE,VOLTAGE:1X,2 METER	80009	010-6101-02
-1	206-0223-00		1		. . PROBE,HEAD:2 METER,YELLOW	80009	206-0223-00
-2	-----	1	1		. . . TIP,PROBE:		
-3	-----	2	1		. . . TIP,PROBE:IC TEST		
-4	175-1661-01		1		. . CA,ASSY,SP,ELEC:COAX,2 METER,YELLOW	80009	175-1661-01
-5	103-0189-00		1		. . ADPTR,CA END:	80009	103-0189-00
3 METER PROBE							
	010-6101-05		1		PROBE,VOLTAGE:1X,3M,W/ACCESSORIES	80009	010-6101-05
	010-6101-04		1		. PROBE,VOLTAGE:1X,3 METER	80009	010-6101-04
-1	206-0223-00		1		. . PROBE,HEAD:3 METER RED	80009	206-0223-00
-2	-----	1	1		. . . TIP,PROBE:		
-3	-----	2	1		. . . TIP,PROBE:IC TEST		
-4	175-1661-02		1		. . CA,ASSY,SP,ELEC:COAX,3 METER RED	80009	175-1661-02
-5	103-0189-00		1		. . ADPTR,CA END:	80009	103-0189-00
ACCESSORIES							
-6	016-0521-00		1		POUCH,ACCESSORY:	05006	OBD
-7	013-0107-03		1		TIP,PROBE:RET HOOK ASSY	80009	013-0107-03
-8	166-0404-01		1		INSUL SLVG,ELEC:FOR 0.188 DIA PROBE BSHG	80009	166-0404-01
-9	344-0046-00		2		CLIP,ELECTRICAL:ALLIGATOR TYPE,W/COVER	80009	344-0046-00
-10	352-0351-00		1		HOLDER,PROBE:	80009	352-0351-00
-11	-----	1	2		TIP,PROBE:		
-12	175-0125-01		1		LEAD,ELECTRICAL:PROBE,GND,12 INCHES LONG	80009	175-0125-01
-13	175-0124-01		1		LEAD,ELECTRICAL:PROBE,GND,5 INCHES LONG	80009	175-0124-01
	334-2794-00		2		BAND,MARKER:0.371 DIA,BLACK,PLASTIC	80009	334-2794-00
	334-2794-01		2		BAND,MARKER:0.371 DIA,WHITE,PLASTIC	80009	334-2794-01
	334-2794-02		2		BAND,MARKER:0.371 DIA,SILVER GRAY PLSTC	80009	334-2794-02
	062-1803-00		1		DATA CARD:P6101(NOT SHOWN)	80009	062-1803-00
	062-1797-00		1		DATA SHEET:P6101(NOT SHOWN)	80009	062-1797-00

<sup>1</sup>Available only in packs of 10, PN 206-0191-01.

<sup>2</sup>Available only in packs of 10, PN 015-0201-01 or 100, PN 015-0201-02.